

Amendments to the Claims:

This listing will replace all prior versions and listings of the claims.

Listing of the Claims:

1-10. (Canceled)

11. (Withdrawn) An isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

(a) a polypeptide fragment of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;

(b) a polypeptide fragment of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z, having biological activity;

(c) a polypeptide domain of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;

(d) a polypeptide epitope of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;

(e) a secreted form of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;

(f) a full length protein of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;

(g) a variant of SEQ ID NO:Y;

(h) an allelic variant of SEQ ID NO:Y; or

(i) a species homologue of the SEQ ID NO:Y.

12. (Canceled)

13. (Withdrawn) An isolated antibody that binds specifically to the isolated polypeptide of claim 11.

14. (Canceled)

15. (Withdrawn) A method of making an isolated polypeptide comprising:

(a) culturing the recombinant host cell of claim 14 under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

16. (Canceled)

17. (Withdrawn) A method for preventing, treating, or ameliorating a medical condition, comprising administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 11.

18. (Withdrawn- currently amended) A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or absence of a mutation in the polynucleotide of claim 25[[1]]; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

19. (Withdrawn) A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or amount of expression of the polypeptide of claim 11 in a biological sample; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

20. (Withdrawn) A method for identifying a binding partner to the polypeptide of claim 11 comprising:

(a) contacting the polypeptide of claim 11 with a binding partner; and

(b) determining whether the binding partner effects an activity of the polypeptide.

21. (Canceled)

22. (Withdrawn) A method of identifying an activity in a biological assay, wherein the method comprises:

- (a) expressing SEQ ID NO:X in a cell;
- (b) isolating the supernatant;
- (c) detecting an activity in a biological assay; and
- (d) identifying the protein in the supernatant having the activity.

23. (Canceled)

24. (Withdrawn) A method for preventing, treating, or ameliorating a medical condition, comprising administering to a mammalian subject a therapeutically effective amount of the polynucleotide of claim 1.

25. (Previously Presented) An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

- (a) a polynucleotide encoding amino acid residues 1 to 88 of SEQ ID NO:83;
- (b) a polynucleotide encoding amino acid residues 2 to 88 of SEQ ID NO:83; and
- (c) a polynucleotide encoding amino acid residues 22 to 88 of SEQ ID NO:83.

26. (Previously Presented) The isolated polynucleotide of claim 25, wherein said polynucleotide is (a).

27. (Previously Presented) The isolated polynucleotide of claim 25, wherein said polynucleotide is (b).

28. (Previously Presented) The isolated polynucleotide of claim 25, wherein said polynucleotide is (c).

29. (Previously Presented) An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

(a) a polynucleotide encoding the amino acid sequence of the full-length polypeptide, which amino acid sequence is encoded by the HMADS41 cDNA clone contained in ATCC Deposit No.209563;

(b) a polynucleotide encoding the amino acid sequence of the full-length polypeptide, excluding the N-terminal methionine residue, which amino acid sequence is encoded by the HMADS41 cDNA clone contained in ATCC Deposit No.209563; and

(c) a polynucleotide encoding the amino acid sequence of the secreted polypeptide, which amino acid sequence is encoded by the HMADS41 cDNA clone contained in ATCC Deposit No.209563.

30. (Previously Presented) The isolated polynucleotide of claim 29, wherein said polynucleotide is (a).

31. (Previously Presented) The isolated polynucleotide of claim 29, wherein said polynucleotide is (b).

32. (Previously Presented) The isolated polynucleotide of claim 29, wherein said polynucleotide is (c).

33. (Previously Presented) An isolated nucleic acid molecule comprising a first polynucleotide 95% or more identical to a second polynucleotide selected from the group consisting of:

(a) a polynucleotide encoding amino acid residues 1 to 88 of SEQ ID NO:83;

(b) a polynucleotide encoding amino acid residues 2 to 88 of SEQ ID NO:83; and

(c) a polynucleotide encoding amino acid residues 22 to 88 of SEQ ID NO:83.

34. (Currently Amended) The isolated nucleic acid molecule of claim 33, wherein said polynucleotide is (a) which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding amino acid residues 1 to 88 of SEQ ID NO:83.

35. (Currently Amended) The isolated nucleic acid molecule of claim 33,
wherein said polynucleotide is (b)~~which further comprises a first polynucleotide 95% or
more identical to a second polynucleotide encoding amino acid residues 2 to 88 of SEQ ID
NO:83.~~

36. (Currently Amended) The isolated nucleic acid molecule of claim 33,
wherein said polynucleotide is (c)~~which further comprises a first polynucleotide 95% or
more identical to a second polynucleotide encoding amino acid residues 22 to 88 of SEQ
ID NO:83.~~

37. (Previously Presented) An isolated nucleic acid molecule comprising a first
polynucleotide 95% or more identical to a second polynucleotide selected from the group
consisting of:

(a) a polynucleotide encoding the amino acid sequence of the full-length
polypeptide, which amino acid sequence is encoded by the HMADS41 cDNA contained in
ATCC Deposit No. 209563; and

(b) a polynucleotide encoding the amino acid sequence of the secreted
polypeptide, which amino acid sequence is encoded by the HMADS41 cDNA contained in
ATCC Deposit No. 209563.

38. (Currently Amended) The isolated nucleic acid molecule of claim 37,
wherein said polynucleotide is (a)~~which further comprises a first polynucleotide 95% or
more identical to a second polynucleotide encoding the amino acid sequence of the full-
length polypeptide, which amino acid sequence is encoded by the HMADS41 cDNA
contained in ATCC Deposit No. 209563.~~

39. (Currently Amended) The isolated nucleic acid molecule of claim 37,
wherein said polynucleotide is (b)~~which further comprises a first polynucleotide 95% or
more identical to a second polynucleotide encoding the amino acid sequence of the~~

~~secreted polypeptide, which amino acid sequence is encoded by the HMADS41 cDNA contained in ATCC Deposit No. 209563.~~

40. (Currently Amended) An isolated nucleic acid molecule comprising at least 150 ~~[[50]]~~ contiguous nucleotides of a polynucleotide encoding amino acid residues 1 to 88 of SEQ ID NO:83. ~~SEQ ID NO:38.~~

41. (Currently Amended) The isolated nucleic acid molecule of claim 40, wherein said nucleic acid molecule comprises at least 150 ~~[[50]]~~ contiguous nucleotides of the complementary strand of a polynucleotide encoding amino acid residues 1 to 88 of SEQ ID NO:83. ~~SEQ ID NO:38.~~

42. (Currently Amended) An isolated nucleic acid molecule comprising at least 150 ~~[[50]]~~ contiguous nucleotides of a polynucleotide encoding the full-length polypeptide of the HMADS41 cDNA contained in ATCC Deposit No. 209563.

43. (Currently Amended) The isolated nucleic acid molecule of claim 42, wherein said nucleic acid molecule comprises at least 150 ~~[[50]]~~ contiguous nucleotides of the complementary strand of a polynucleotide encoding the full-length polypeptide of the HMADS41 cDNA contained in ATCC Deposit No. 209563.

44. (Previously Presented) The isolated nucleic acid molecule of claim 25 wherein the polynucleotide further comprises a heterologous polynucleotide which encodes a polypeptide.

45. (Previously Presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 25.

46. (Previously Presented) The recombinant vector of claim 45 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

47. (Previously Presented) A recombinant host cell comprising the recombinant vector of claim 45.

48. (Previously Presented) The isolated nucleic acid molecule of claim 29 wherein the polynucleotide further comprises a heterologous polynucleotide which encodes a polypeptide.

49. (Previously Presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 29.

50. (Previously Presented) The recombinant vector of claim 49 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

51. (Previously Presented) A recombinant host cell comprising the recombinant vector of claim 49.